

**TISSUE SUBSTITUTE MATERIAL****ABSTRACT OF THE DISCLOSURE**

Fibre-reinforced material that substitutes for cartilage-like tissue, consisting of a hydrophilic, relatively elastic fibre structure and a matrix of polymerised hydrogel. The fibre/matrix bonding is increased by saturating the fibre in the monomer solution before polymerisation of the hydrogel. The fibre preferably consists of a material based on polyurethane. More particularly, this material contains 10-70% (m/m) fibres (based on the dry matter) and 1-5% (m/m) (based on the dry matter) of a substance that contains ionised groups has been added to said hydrogel.